Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
200 Fair Oaks Lane, 1st Floor
Frankfort, Kentucky 40601
(502) 573-3382

Draft

AIR QUALITY PERMIT

Issued under 401 KAR 52:030

Permittee Name:	**Ken Dec Inc.**
Mailing Address:	**P.O. Box 129, Horse Cave, KY 42749**
Source Name:	**Ken Dec Inc.**
Mailing Address:	**1145 South Dixie Hwy** **Horse Cave, KY 42749**
Source Location:	**1145 South Dixie Hwy**
Permit ID:	**F-07-037**
Agency Interest #:	**1780**
Activity ID:	**APE20070001**
Review Type:	**Conditional Major, Operating**
Source ID:	**21-099-00018**
Regional Office:	**Bowling Green Regional Office** **1508 Westen Avenue** **Bowling Green, KY 42104** **(270) 746-7475**
County:	**Hart**
Application Complete Date:	**February 13, 2008**
Issuance Date:	
Revision Date:	
Expiration Date:	

John S. Lyons, Director
Division for Air Quality

Revised 05/07/07

TABLE OF CONTENTS

	Permit type	**Activity#**	**Complete Date**	**Issuance Date**	**Summary of Action**
F-07-037	**Initial Issuance**	**APE20040001**	**2/13/2008**	**TBD**	**Initial Operating Permit**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

EP 1 (S01) Cleaver Brooks Boiler – Plating Primary Boiler
Capacity: 5.23 million British thermal units per hour (mmBtu/hr)
Construction Commenced: 1969
Control Equipment: None
Primary Fuel: Natural gas

EP 2 (S02) Orr & Simbower Boiler – Plating Backup Boiler
Capacity: 4.185 mmBtu/hr
Construction Commenced: 1966
Control Equipment: None
Primary Fuel: Natural gas

EP 3 (S03) Rite - Waste Water Plant Boiler
Capacity: 2.5 mmBtu/hr
Construction Commenced: 1989
Control Equipment: None
Primary Fuel: Natural gas

APPLICABLE REGULATIONS:

401 KAR 61:015, *Existing Indirect Heat Exchangers*, applicable to affected facilities with a capacity of 250 million Btu/hr heat input or less and greater than one (1) mmBtu/hr, and constructed before April 9, 1972. This rule applies to EP 1 and EP 2.

401 KAR 59:015, *New Indirect Heat Exchangers*, particulate matter and sulfur dioxide emissions limitations apply to affected facilities with a capacity of 250 million Btu/hr heat input or less and greater than one (1) mmBtu/hr, and constructed on or after April 9, 1972. This rule applies to EP 3.

1. **Operating Limitations:**
   Only natural gas shall be used as the fuel.

   ***Compliance Demonstration Method*:**
   See **Specific Monitoring, Recordkeeping, and Reporting Requirements** below.

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 61:015, Section 4(1), emissions of particulate matter from the combustion of natural gas shall not exceed 0.79 lb/mmBtu for EP 1 and EP 2 based on a three-hour average.
   b. Pursuant to 401 KAR 61:015, Section 4(2), emissions shall not exceed 40% opacity for EP 1 and EP 2 except for emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
   c. Pursuant to 401 KAR 61:015, Section 5(1), emissions of sulfur dioxide from the combustion of natural gas shall not exceed 5.97 lb/mmBtu for EP 1 and EP 2 based on a 24-hour average.
   d. Pursuant to 401 KAR 59:015, Section 4(1), emissions of particulate matter (PM) from the combustion of natural gas shall not exceed 0.54 lb/mmBtu for EP 3 based on a three-hour average.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e. Pursuant to 401 KAR 59:015, Section 4(2), visible emissions for EP 3 shall not exceed twenty (20) percent opacity based on a six-minute average except:
   i. A maximum of forty (40) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning of the fire box or blowing soot.
   ii. For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

f. Pursuant to 401 KAR 59:015, Section 5(1), sulfur dioxide (SO_2) emissions shall not exceed 2.79 lb/mmBtu actual heat input for EP 3 based on a 24-hour average.

g. Also refer to **Section D.3 Source Emission Limitations** for source wide emission limitations.

***Compliance Demonstration Method*:**

a. Compliance with the particulate emission limit is demonstrated when burning natural gas, based on an AP-42 emission factor of 7.6 lbs total particulates per million standard cubic feet (mmscf) of natural gas burned and a fuel heat capacity of 1020 mmBtu/mmscf.

b. Compliance with the sulfur dioxide limit is demonstrated when burning natural gas, based on an AP-42 emission factor of 0.6 lbs of sulfur dioxide per mmscf and a fuel heat capacity of 1020 mmBtu/mmscf.

c. Compliance with the opacity limit is demonstrated when burning natural gas.

3. Testing Requirements:

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the monthly amount of natural gas usage in the affected facilities (cubic feet/month).

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements.**

b. All records shall be maintained in accordance with **Section F.2**.

6. Specific Reporting Requirements:

a. The permittee shall submit semi-annual reports of the monthly natural gas usage to the Division for Air Quality's Bowling Green office in accordance with **Section F.5** and **F.6**.

b. Also refer to **Section D.5 Source Reporting Requirements**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP 4 Buffer/Grinder
Capacity: 0.1 ton of metal parts/hr
Construction Commenced: 1969
Control Equipment: Baghouse (vents inside building), estimated efficiency of 80%

EP 5 Buffer/Grinder
Capacity: 0.15 ton of metal parts/hr
Construction Commenced: 1969
Control Equipment: Baghouse (vents inside building) , estimated efficiency of 80%

EP 22 Robotic Buffer/Grinder A
Capacity: 0.49 ton/hr
Construction Commenced: 2007
Control Equipment: Baghouse, estimated efficiency of 99%

EP 23 Robotic Buffer/Grinder B
Capacity: 0.49 ton/hr
Construction Commenced: 2007
Control Equipment: Baghouse, estimated efficiency of 99%

APPLICABLE REGULATIONS:

401 KAR 61:020, *Existing Process Operations*, applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates commenced before July 2, 1975. This rule applies to EP 4 and 5.

401 KAR 59:010, *New Process Operations*, applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975. This rule applies to EP 22 and 23.

1. Operating Limitations:

a. Material processing rates at EP 4, 5, 22 and 23 shall be limited such that the permittee is in compliance with the emission limitations specified at **2. Emission Limitations**.

b. The permittee shall operate the control devices for particulate matter at all times that the buffing and grinding equipment is in operation.

c. Also refer to **7. Specific Control Equipment Operating Conditions.**

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3(1), emissions shall not equal or exceed twenty (20) percent opacity from the control device or stack at EP 22 and 23.

b. Pursuant to 401 KAR 61:020, Section 3(1), emissions shall not equal or exceed forty (40) percent opacity from the control device or stack at EP 4 and 5.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter (PM) from the control device or stack at EP 22 and 23 shall not exceed the allowable rate determined as follows:

For processing rates of 1,000 lbs/hr or less, the allowable emission rate is 2.34 lbs/hr.
For process rates up to 60,000 lb/hr: $E = 3.59P^{0.62}$
For process rates in excess of 60,000 lb/hr: $E = 17.31P^{0.16}$

Where E = rate of emissions in lb/hr, and
P = process weight in tons/hr

d. Pursuant to 401 KAR 61:020, Section 3(2), emissions of particulate matter (PM) from the control device or stack at EP 4 and 5 shall not exceed the allowable rate determined as follows:

For processing rates of 1,000 lbs/hr or less, the allowable emission rate is 2.58 lbs/hr.
For process rates up to 60,000 lb/hr: $E = 4.10P^{0.67}$
For process rates in excess of 60,000 lb/hr: $E = 55.0P^{0.11}-40$

Where E = rate of emissions in lb/hr, and
P = process weight in tons/hr

e. Also refer to **Section D.3 Source Emission Limitations** for source wide particulate matter (PM_{10}) emission limitations.

***Compliance Demonstration Method*:**

a. The permittee is presumed to be in compliance with the opacity requirements of 401 KAR 61:020 as long as the equipment exhausts within the building enclosure.
b. Compliance with the opacity requirement of 401 KAR 59:010 is demonstrated by monitoring. See **4.d Specific Monitoring Requirements**.
c. To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amount of process weight added to each emissions unit at emission points 4, 5, 22, and 23. The process weight rate shall be determined by dividing the tons of material added to each emission unit in a calendar month divided by total hours the unit operated that calendar month. Average particulate emissions shall be calculated as follows:

Emissions = PW x PEF x (1 – CE/100)

Where: PW = process weight (tons/hr)
PEF = particulate emission factor (lb/ton process weight, based on AP-42, the most recent stack test, material balance or other factor approved by the Division)
CE = control efficiency (%)

3. Testing Requirements:

Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following information:

a. The total monthly processing rates.
b. The hours per month of the operation of the unit(s).
c. The pollutant emission rates computed in accordance with **2. Emission Limitations,** ***Compliance Demonstration Method***.
d. The permittee shall perform a qualitative visible observation of the opacity of emissions from the stacks for EP 22 & 23 on a weekly basis and maintain a log of the observation. If visible emissions from a stack are seen, then the opacity shall be determined by EPA Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements.**
b. The permittee shall record the occurrence, duration, cause and any corrective action taken for each incident when an emission unit at EP 4, EP 5, EP 22, and EP 23 is in operation but the particulate control device is not.
c. The permittee shall maintain records of preventive maintenance and inspection of the particulate control devices at EP 4, EP 5, EP 22, and EP 23 in accordance with **7. Specific Control Equipment Operating Conditions**.
d. The permittee shall maintain a log of the dates and times of each qualitative visible observation required in **4. Specific Monitoring Requirements** above.
e. The permittee shall maintain a log of the dates and times of any Method 9 test and either the results of the test, or reasons for not performing a Method 9 test.
f. All records shall be maintained in accordance with **Section F.2**

6. Specific Reporting Requirements:

a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
b. When corrective actions are required due to an opacity exceedance as noted in **2.b Emission Limitations,** the permittee shall submit the following information from the control device inspection and repair log:
   i. A description of the deviation;
   ii. The date and time period of the deviation;
   iii. Actions taken to correct the deviation; and
   iv. A statement of the cause of each deviation.

   Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F.5** and **F.6**.
c. Also refer to **Section D.5 Source Reporting Requirements**.

7. Specific Control Equipment Operating Conditions:

Preventive maintenance shall be performed, for all particulate control devices, in accordance with the manufacturers' recommendations.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PAINT BOOTHS: Miscellaneous metal parts coating using manual and automatic spray booths.

EP 6 (S04) Manual Spray Booth (Dual 3-Sided Booth Utilizing up to 4-Applicators)
Capacity: 0.5 gal/hr
Construction Commenced: 1977
Control Equipment: Passive air flow filter, estimated efficiency of 98%

EP 7 (S05) Manual Spray Booth (Dual 3-Sided Booth Utilizing up to 4-Applicators)
Capacity: 0.5 gal/hr
Construction Commenced: 1977
Control Equipment: Passive air flow filter, estimated efficiency of 98%

EP 8 (S06) Manual Spray Booth (Dual 3-Sided Booth Utilizing up to 4-Applicators)
Capacity: 0.5 gal/hr
Construction Commenced: 1977
Control Equipment: Passive air flow filter, estimated efficiency of 98%

EP 9 (S07) Automatic Spray Booth (Single 3-Sided Booth Utilizing up to 3-Applicators)
Capacity: 1.5 gal/hr
Construction Commenced: 1977, estimated efficiency of 98%
Control Equipment: Passive air flow filter, estimated efficiency of 98%

EP 10 (S08) Paint Shield Wash Unit
Capacity: 0.075 gal/hr
Construction Commenced: 1977
Control Equipment: Enclosed tank

EP 11 (S09) Manual Spray Booth (Dual 3-Sided Booth Utilizing up to 4-Applicators)
Capacity: 0.5 gal/hr
Construction Commenced: 1977
Control Equipment: Passive air flow filter, estimated efficiency of 98%

EP 20 (S16) Drying Oven #1 – Washer Oven #408
Direct Fired Unit
Capacity: 0.88 mmBtu/hr
Construction Commenced: 1974
Control Equipment: None
Primary Fuel: Natural gas

EP 21 (S17) Drying Oven #2 – Paint Room #487M
Direct Fired Unit
Capacity: 10.06 mmBtu/hr
Construction Commenced: 1974
Control Equipment: None
Primary Fuel: Natural gas

APPLICABLE REGULATIONS:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

401 KAR 59:010, *New Process Operations,* applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

1. Operating Limitations:

a. The total material input usage to source coating operations for EPs 6, 7, 8, 9, 10, 11, 20, and 21 shall be limited such that the permittee is in compliance with the source-wide emission limitations specified at **2.c Emission Limitations**.

b. Particulate filters must be in place and operational according to the manufacturers' specifications and recommendations at anytime a listed spray booth is in use.

c. The particulate filters shall be replaced when determined to be inefficient (as determined by visual inspection). Also see **4. Specific Monitoring Requirements**.

Compliance Demonstration Method:

Refer to **4. Specific Monitoring Requirements**, and **5. Specific Recordkeeping Requirements.**

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3(1)(a) visible emissions from each stack shall not equal or exceed 20 percent.

b. Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions from each spray booth shall not exceed 2.34 lbs/hr.

c. Also refer to **Section D.3 Source Emission Limitations** for source wide emission limitations.

***Compliance Demonstration Method*:**

a. Compliance with the opacity requirements of paragraph 2.a is demonstrated by monitoring. See **4.b Specific Monitoring Requirements**.

b. The source is considered to be in compliance with paragraph 2.b when filters are in place and functional. Also refer to **4. Specific Monitoring Requirements,** and **5. Specific Recordkeeping Requirements** below.

3. Testing Requirements:

Testing shall be conducted at such times as may be required by the Cabinet in accordance with 401 KAR 59:005, Section 2(2) and 50:045, section 4.

4. Specific Monitoring Requirements:

a. The permittee shall monitor raw material usage as necessary to demonstrate compliance with all requirements of this permit.

b. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stacks at least once per operating week and maintain a log of the observations. If visible emissions from the vents are seen, then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.

c. Particulate filters shall be visually inspected once per shift.

5. Specific Recordkeeping Requirements:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

a. The permittee shall maintain records of the monthly usage of raw material and the VOC and HAP emitted each month.

$$\text{Actual VOC Emissions} = \sum_{i=1}^{n} M_i \rho_i$$

Where;

ρ = weight percent of VOC in coating material "i " less water and/or exempt solvent
i = individual coating material (primer, thinner, cleaner, topcoat 1, topcoat 2, etc.)
n = total number of surface coating materials used
M = pounds of coating material "i " used

$$\text{Single HAP Emission;} \quad HAP_k = \sum_{i=1}^{n} M_i \rho_i$$

Where;

ρ = weight percent of HAP_k in surface coating material "i."
i = individual coating material (primer, thinner, cleaner, topcoat 1, topcoat 2, etc.)
k = individual HAP emission (i.e. toluene, xylene, etc.)
n = total number of coating materials used containing single HAP_k
M = pounds of coating material "i " used

$$\text{Combined HAP Emissions} = \sum_{k=1}^{r} HAP_k$$

Where;

k = individual HAP emission (i.e. toluene, xylene, etc.)
r = total number of single HAP emissions

b. The permittee shall maintain a log of the dates and times of each qualitative visible observation required in **4. Specific Monitoring Requirements**.
c. The permittee shall maintain a log of the dates and times of any Method 9 test and either the results of the test, or reasons for not performing a Method 9 test.

6. Specific Reporting Requirements:

a. When corrective actions are required due to an opacity exceedance as noted in **2.b Emission Limitations,** the permittee shall submit the following information from the control device inspection and repair log:
   i. A description of the deviation;
   ii. The date and time period of the deviation;
   iii. Actions taken to correct the deviation; and
   iv. A statement of the cause of each deviation.

   Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F.5** and **F.6**.
b. Also refer to **Section D.5 Source Reporting Requirements**.

7. Specific Control Equipment Operating Conditions:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Aluminum Die Casting:

Emission Unit	Stack ID	Rated Capacity (lb/hr)	Burner Heat Input Capacity (mmBtu/hr)	Install Date
33 (Al Die Casting #1) MP1	S26	400	1.18	2003
34 (Al Re-Melt Furnace) MP2	S26	1,000	2.22	2003

No Control Equipment
Chlorine Flux maximum throughput: 0.25 lb/hr
Primary Fuel: Natural gas

Zinc Die Casting:

Emission Unit	Stack ID	Melt Rate (lb/hr)	Burner Heat Input Capacity (mmBtu/hr)
12 (Zn Die Casting #1)	S10	1,156	1.414
13 (Zn Die Casting #2)	S11	800	1.414
14 (Zn Die Casting #3)	S12	1,156	1.414
15 (Zn Die Casting #4)	S13	1,640	1.414
16 (Zn Die Casting #5)	S14	105	0.707
17 (Zn Re-Melt Furnace)	S15	500	5.656

Construction Commenced: 1969
Control Equipment: None
Flux Usage: 0.625 lb/hr of Zn290 Zinc Flux for all units

APPLICABLE REGULATIONS:

401 KAR 61:020, *Existing Process Operations*, applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates commenced before July 2, 1975. This rule applies to EPs 12, 13, 14, 15, 16, and 17.

401 KAR 59:010, *New Process Operations*, applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975. This rule applies to EPs 33 and 34.

1. Operating Limitations:

a. To preclude applicability of 40 CFR 63, Subpart RRR, the aluminum die casting facilities and the re-melt furnace shall process only clean charge, customer returns, or internal scrap.

b. The permittee shall limit the processing rates at the units listed above such that the permittee is in compliance with the emission limitations specified at **2. Emission Limitations**.

***Compliance Demonstration Method*:**

Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements.**

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3(1), emissions shall not equal or exceed twenty (20) percent opacity from the control device or stack at EPs 33 and 34.

b. Pursuant to 401 KAR 61:020, Section 3(1), emissions shall not equal or exceed forty (40) percent opacity from the control device or stack at EPs 12, 13, 14, 15, 16, and 17.

c. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter (PM) from the control device or stack at EPs 33, 34, and 36 shall not exceed the allowable rate determined as follows:

For processing rates of 1,000 lbs/hr or less, the allowable emission rate is 2.34 lbs/hr.
For process rates up to 60,000 lb/hr: $E = 3.59P^{0.62}$

Where E = rate of emissions in lb/hr, and
P = process weight in tons/hr

d. Pursuant to 401 KAR 61:020, Section 3(2), emissions of particulate matter (PM) from the control device or stack at EPs 12, 13, 14, 15, 16, and 17 shall not exceed the allowable rate determined as follows:

For processing rates of 1,000 lbs/hr or less, the allowable emission rate is 2.58 lbs/hr.
For process rates up to 60,000 lb/hr: $E = 4.10P^{0.67}$

Where E = rate of emissions in lb/hr, and
P = process weight in tons/hr

e. Also refer to **Section D.3 Source Emission Limitations** for source wide emission limitations.

***Compliance Demonstration Method*:**

a. For compliance with the opacity limits of 401 KAR 59:010 and 401 KAR 61:020, refer to **4.d Specific Monitoring Requirements**.

b. To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amount of process weight added to each emissions unit at EPs 12, 13, 14, 15, 16, 33, and 34. The process weight rate shall be determined by dividing the tons of material added to each emissions unit in a calendar month divided by the total hours the unit operated that calendar month. Average particulate emissions shall be calculated as follows:

Emissions = PW x PEF x (1 – CE/100)

Where: PW = process weight (tons/hr)
PEF = particulate emission factor (lb/ton process weight, based on AP-42, the most recent stack test, material balance or other factor approved by the Division)
CE = control efficiency (%)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following information:

a. The total monthly processing rates.
b. The hours per month of the operation of the unit(s).
c. The pollutant emission rates computed in accordance with **2. Emission Limitations,** ***Compliance Demonstration Method***.
d. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stacks at least once per operating week and maintain a log of the observations. If the equipment is not in operation (EP 33 and 34) this fact shall be noted in the log. If visible emissions from the vents are seen, then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements.**
b. The permittee shall maintain a log of the dates and times of each qualitative visible observation required in **4.d Specific Monitoring Requirements** above.
c. The permittee shall maintain a log of the dates and times of any Method 9 test and either the results of the test, or reasons for not performing a Method 9 test.
d. All records shall be maintained in accordance with **Section F.2**

6. Specific Reporting Requirements:

a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
b. When corrective actions are required due to an opacity exceedance as noted in **2.b Emission Limitations,** the permittee shall submit the following information from the control device inspection and repair log:
   i. A description of the deviation;
   ii. The date and time period of the deviation;
   iii. Actions taken to correct the deviation; and
   iv. A statement of the cause of each deviation.

   Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F.5** and **F.6**.
c. Also refer to **Section D.5 Source Reporting Requirements**.

7. Specific Control Equipment Operating Conditions:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Plating:

Emission Point	Stack ID	Tank Designation and Type of Operation	Tank Capacity (gallons)	Emissions Control	Install Date
EP30	S24	Pre-Soak I (1G)	1,156	None	1969
		Pre-Soak II (3G)	500	None	1969
		Electro-Cleaner (5G)	800	None	1969
		Chrome Pre-Dip (29E)	500	Fume Suppressant	1969
		Chrome (30F)	1,000	Fume Suppressant	1969
EP24	S18	Acid Salt (7A)	500	None	1969
		Copper Cyanide (9A)	1,200	None	1969
		Copper Cyanide (10A)	3,500	None	1969
EP25	S19	1505 Cleaner (13A)	1,000	None	1969
EP26	S20	Acid Dip (16B)	5,500	None	1969
		Acid Copper (17B)	4,500	None	1969
EP27	S21	Acid Dip (20C)	500	None	1969
EP28	S22	Semi-Bright	6,500	None	1969
		Bright	4,000	None	1969
		Dura-nite	1,000	None	1970
EP31	S25	Activator (3H)	500	None	1983
		Acid Dip (5H)	500	None	1983
EP32	S24	Chrome (7F)	500	Fume Suppressant	1983
		Tri-Chrome (8F)	500	Fume Suppressant	1983

APPLICABLE REGULATIONS:

401 KAR 61:020, *Existing Process Operations*, applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates commenced before July 2, 1975. This rule applies to EPs 24, 25, 26, 27, 28, and 30.

401 KAR 59:010, *New Process Operations*, applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975. This rule applies to EPs 31 and 32.

401 KAR 63:002 Section (3)(k), incorporating by reference 40 CFR 63 Subpart N, *National Emission Standard for Chromium Emissions from Hard and Decorative Chromium Anodizing Tanks*, applies to emission points 30 and 32, tanks 29E, 30F, 7F and 8F.

401 KAR 63:020, Potentially hazardous matter or toxic substances, applies to emissions of chromium, nickel, and cyanide.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

a. The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference in 401 KAR 63:002 Section 3(a), apply to the affected facilities listed in this section, except when otherwise specified in 40 CFR 63 Subpart N. Table 1 to Subpart N of Part 63 specifies the provisions of Subpart A that apply and those that do not apply. [40 CFR Part 63.340(b)]

b. The permittee shall prepare and implement an operation and maintenance plan. This plan, which is incorporated by reference into this permit, shall include the following elements: [40 CFR 63.342(f)(3)(i)]

i. Operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emission limits), and the process and control system monitoring equipment and shall include a standardized checklist to document the operation and maintenance of this equipment; [40 CFR 63.342(f)(3)(i)(A)]

ii. Work practice standards for the control device and monitoring equipment as identified in 40 CFR 63.342 Table 1; [40 CFR 63.342(f)(3)(i)(B)]

iii. If the specific equipment used is not identified in 40 CFR 63.342 Table 1, the plan shall incorporate proposed operation and maintenance practices. These proposed operation and maintenance practices shall be submitted for approval as part of the submittal required under 40 CFR 63.343(d); [40 CFR 63.342(f)(3)(i)(C)]

iv. Procedures to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and [40 CFR 63.342(f)(3)(i)(D)]

v. Systematic procedures for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment and for implementing corrective actions to address such malfunctions. [40 CFR 63.342(f)(3)(i)(E)]

c. If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the plan within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events and a program for corrective action for such events. [40 CFR 63.342(f)(3)(ii)]

d. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report by phone such actions within working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the Division. [40 CFR 63.342(f)(3)(iv)]

e. The permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Division for the life of the affected source or until the source is no longer subject to the provisions of 40 CFR 63 Subpart N. If the operation and maintenance plan is revised, the permittee shall keep previous versions of the operation and maintenance plan on record to be made available for inspections, upon request, by the Division for a period of 5 years after each revision to the plan. [40 CFR 63.342(f)(3)(v)]

f. The requirements for the plan may be met using applicable standard operation procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other

existing plans, provided the alternative plans meet the requirements outlined in (1)(a). [40 CFR 63.342(f)(3)(vi)].

g. The permittee shall limit the processing rates at the units listed above such that the permittee is in compliance with the emission limitations specified at **2. Emission Limitations**.

***Compliance Demonstration Method*:**

a. The permittee has submitted the Decorative Chromium Electroplating Operations and Maintenance Plan as required by 40 CFR 63.342(f)(3)(i) on January 11, 1996.

b. Also, refer to **5. Specific Recordkeeping Requirements,** and **6. Specific Reporting Requirements.**

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3(1), emissions shall not equal or exceed twenty (20) percent opacity from the control device or stack at EPs 31 and 32.

b. Pursuant to 401 KAR 61:020, Section 3(1), emissions shall not equal or exceed forty (40) percent opacity from the control device or stack at EPs 24, 25, 26, 27, 28, and 30.

c. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter (PM) from the control device or stack at EPs 31 and 32 shall not exceed the allowable rate determined as follows:

For processing rates of 1,000 lbs/hr or less, the allowable emission rate is 2.34 lbs/hr.
For process rates up to 60,000 lb/hr: $E = 3.59P^{0.62}$
For process rates in excess of 60,000 lb/hr: $E = 17.31P^{0.16}$

Where E = rate of emissions in lb/hr, and
P = process weight in tons/hr

d. Pursuant to 401 KAR 61:020, Section 3(2), emissions of particulate matter (PM) from the control device or stack at EPs 24, 25, 26, 27, 28, and 30 shall not exceed the allowable rate determined as follows:

For processing rates of 1,000 lbs/hr or less, the allowable emission rate is 2.58 lbs/hr.
For process rates up to 60,000 lb/hr: $E = 4.10P^{0.67}$
For process rates in excess of 60,000 lb/hr: $E = 55.0P^{0.11}-40$

Where E = rate of emissions in lb/hr, and
P = process weight in tons/hr

e. The emission limitations of 40 CFR 63, Subpart N, specified in paragraph f below, apply during tank operation as defined in §63.341, and during periods of startup and shutdown as these are routine occurrences for affected sources subject to this subpart. The emission limitations do not apply during periods of malfunction, but the work practice standards that address operation and maintenance and that are required by paragraph (f) of this section must be followed during malfunctions. [40 CFR 63.342(b)(1)]

f. For EPs 30 and 32, during tank 29E, 30F, 7F and 8F operation, the permittee shall control chromium emissions discharged to the atmosphere from that affected source by either: [40 CFR 63.342(d)(2)]

i. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.01 mg/dscm (4.4×10^{-6}gr/dscf); or [40 CFR 63.342(d)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. If a chemical fume suppressant containing a wetting agent is used, by not allowing the surface tension of the electroplating or anodizing bath contained within the affected source to exceed 45 dynes/cm (3.1×10^{-3}lbf/ft) as measured by a stalagmometer or 35 dynes/cm (2.4×10^{-3}lbf/ft) as measured by a tensiometer at any time during operation of the tank. [40 CFR 63.342(d)(2)]

iii. A lesser amount as determined by the Cabinet based on the applicability of 401 KAR 63:020.

g. Pursuant to 401 KAR 63:020, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

h. Also refer to **Section D.3 Source Emission Limitations** for source wide emission limitations.

***Compliance Demonstration Method*:**

a. For compliance with the opacity limit, refer to **4.a Specific Monitoring Requirements**.

b. The source is considered to be in compliance with the particulate matter emissions limitations of 401 KAR 59:010 and 401 KAR 61:020 when the source has demonstrated compliance with the MACT and made the visible emissions observations described below under **4.d Specific Monitoring Requirements**.

To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amount of process weight added to each emissions unit at EPs 4, 5, 22, and 23. The process weight rate shall be determined by dividing the tons of material added to each emissions unit in a calendar month divided by the total hours the unit operated that calendar month. Average particulate emissions shall be calculated as follows:

Emissions = PW x PEF x (1 – CE/100)

Where: PW = process weight (tons/hr)
PEF = particulate emission factor (lb/ton process weight, based on AP-42, the most recent stack test, material balance or other factor approved by the Division)
CE = control efficiency (%)

c. Also refer to **3. Testing Requirements** and **4.d Specific Monitoring Requirements.**

3. Testing Requirements:

a. Pursuant to 40 CFR 63.343(c)(5)(ii)(A), the surface tension shall be measured during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of 40 CFR 63 Subpart N.

b. Within 180 days of the issuance of this permit, the permittee will conduct performance tests to determine hexavalent chromium emissions using EPA test Methods 306 or 306A as described by §63.344(c)(1), nickel emissions using EPA test Method 29, and cyanide emissions using California Air Resources Board (CARB) test Method 426. Within 90 days following the performance tests, the permittee shall use the actual emissions determined from the performance tests in conjunction with a U.S. EPA developed air dispersion modeling program to show compliance with 401 KAR 63:020 such that the predicted emission concentrations do not exceed a Level of Concern (LOC) at any location outside of the permittee's property boundaries in excess of the values given below. The permittee shall

submit all modeling related information including raw data input and output files.

Pollutant by (CAS number)	Level of Concern (LOC) ($\mu g/m^3$)
Chromium Compounds (18540-29-9)	0.000083
Cyanide Compounds (57-12-5)	0.3
Nickel Compounds (7440-02-0)	0.09

c. If modeling based on the tested emissions predict emission concentrations in excess of the LOC for any of the above pollutants, the permittee shall:
   i. Accept practically enforceable limitations to achieve these levels, or
   ii. Demonstrate TAP-BACT in which the permittee shall employ methods, devices, or other means to reduce emissions of Toxic Air Pollutants (TAPs) by a level of control that is comparable to the Best Available Control Technology (BACT) of Federal and State Prevention of Significant Deterioration" (PSD) regulations.

d. If the application of TAP-BACT does not reduce the unit risk for carcinogens below 1×10^{-4} or the Hazard Index for non-carcinogens below 10.0, the permittee will accept practically enforceable limitations to achieve these levels.

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following information:

a. The total monthly processing rates.
b. The hours per month of the operation of the unit(s).
c. The pollutant emission rates computed in accordance with **2. Emission Limitations,** ***Compliance Demonstration Method***.
d. The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observation. If visible emissions from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs. The opacity observed shall be recorded in the log.
e. Pursuant to 40 CFR 63.343(c)(5)(ii), for EPs 30 and 32, the surface tension of tanks 29E, 30F, 7F and 8F shall be monitored according to the following schedule:
   i. The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of 40 CFR 63 Subpart N. [40 CFR 63.343(c)(5)(ii)(A)]
   ii. The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation. [40 CFR 63.343(c)(5)(ii)(B)]
   iii. Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in 40 CFR 63.343(c)(5)(ii)(B). For example, if an owner or operator had been monitoring an affected source once every 40 hours and

an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation. [40 CFR 63.343(c)(5)(ii)(C)]

f. Pursuant to 40 CFR 63.343(c)(5)(iii), for EPs, 30 and 32, once a bath solution is drained from the affected tanks and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures of 40 CFR 63.343(c)(5)(ii) (B) and (C).

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements**.

b. The permittee shall maintain a log of the dates and times of each qualitative visible observation required in **4.d Specific Monitoring Requirements** above.

c. The permittee shall maintain a log of the dates and times of each Method 9 test and either the results of the test, or reasons for not performing a Method 9 test.

d. Pursuant to 40 CFR 64.346(b), for EPs 30 and 32, the permittee shall maintain the following records:

i. Inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of 40 CFR 63.342(f) and Table 1 of 40 CFR63.342 have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection; [40 CFR 63.346(b)(1)]

ii. Records of all maintenance performed on the affected source, the add-on air pollution control device, and monitoring equipment; [40 CFR 63.346(b)(2)]

iii. Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control, and monitoring equipment; [40 CFR 63.346(b)(3)]

iv. Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan; [40 CFR 63.346(b)(4)]

v. Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan required by 40 CFR63.342(f)(3); [40 CFR 63.346(b)(5)]

vi. Test reports documenting results of all performance tests; [40 CFR 63.346(b)(6)]

vii. All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance with the special compliance procedures of 40 CFR 63.344(e); [40 CFR 63.346(b)(7)]

viii. Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected; [40 CFR 63.346(b)(8)]

ix. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control, or monitoring equipment; [40 CFR 63.346(b)(9)]

x. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control, or monitoring equipment; [40 CFR 63.346(b)(10)]
xi. The total process operating time of the affected source during the reporting period; [40 CFR 63.346(b)(11)]
xii. For sources using fume suppressants to comply with the standards, records of the date and time that fume suppressants are added to the electroplating or anodizing bath. [40 CFR 63.346(b)(13)]

e. Pursuant to 40 CFR 63.346(c), for EPs 30 and 32, all records shall be maintained for a period of 5 years in accordance with 40 CFR 63.10(b)(1).
f. Pursuant to 40 CFR 63.342(f)(3)(v), the permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Division for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the permittee shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, by the Division for a period of 5 years after each revision to the plan.
g. Also see **Section F.2**

6. Specific Reporting Requirements:

a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
b. Pursuant to 40 CFR 63.347(h)(1), for EPs 30 and 32, the owner or operator of an affected source that is located at an area source site shall prepare a summary report to document the ongoing compliance status of the affected source. The report shall contain the information identified in 40 CFR 63.347(g)(3), shall be completed annually and retained on site, and made available to the Administrator upon request. The report must contain the following information:
i. The company name and address of the affected source; 40 CFR 63.347(g)(3)(i)
ii. An identification of the operating parameter that is monitored for compliance determination, as required by 40 CFR 63.343(c); 40 CFR 63.347(g)(3)(ii)
iii. The relevant emission limitation for the affected source, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the notification of compliance status required by paragraph (e) of this section; 40 CFR 63.347(g)(3)(iii)
iv. The beginning and ending dates of the reporting period; 40 CFR 63.347(g)(3)(iv)
v. A description of the type of process performed in the affected source; 40 CFR 63.347(g)(3)(v)
vi. The total operating time of the affected source during the reporting period; 40 CFR 63.347(g)(3)(vi)
vii. A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

malfunctions, other known causes, and unknown causes; 40 CFR 63.347(g)(3)(viii)

viii. A certification by a responsible official, as defined in 40 CFR 63.2, that the work practice standards in 40 CFR 63.342(f) were followed in accordance with the operation and maintenance plan for the source; 40 CFR 63.347(g)(3)(ix)

ix. If the operation and maintenance plan required by 40 CFR 63.342(f)(3) was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the report(s) required by 40 CFR 63.342(f)(3)(iv) documenting that the operation and maintenance plan was not followed; 40 CFR 63.347(g)(3)(x)

x. A description of any changes in monitoring, processes, or controls since the last reporting period; 40 CFR 63.347(g)(3)(xi)

xi. The name, title, and signature of the responsible official who is certifying the accuracy of the report; and 40 CFR 63.347(g)(3)(xii)

xii. The date of the report. 40 CFR 63.347(g)(3)(xiii)

c. Also, refer to **1.d Operating Limitations.**

7. Specific Control Equipment Operating Conditions:

None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

	Description	Generally Applicable Regulation
EP 36	**Two (2) Flash Evaporators:** Capacity: approximately 0.065 Million Gallons Wastewater Processed/hour Construction Commenced: 1989 Control Equipment: Building enclosure	**401 KAR 59:010**

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. VOC, HAP, and Particulate Matter (PM_{10}) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. **Source Emission Limitations:**
   a. To preclude the applicability of 401 KAR 52:020, *Title V Permits*, the total annual source-wide PM_{10} emissions shall be no greater than 90 tons on a twelve (12) consecutive month basis.
   b. Source-wide emissions of Volatile Organic Compounds (VOC) shall be no greater than 90 tons during any consecutive twelve (12) months period.
   c. Source-wide emissions of Single Hazardous Air Pollutants (HAP) shall be no greater than 9 tons during any consecutive twelve (12) months period, and
   d. The permittee shall keep source-wide emissions of Combined Hazardous Air Pollutants (HAP) no greater than 22.5 tons during any consecutive twelve (12) months period.

   ***Compliance Demonstration Methods*:**
   a. Monthly emissions of PM_{10} shall be calculated and shall be used to calculate rolling twelve (12) month total for each respective emission point in Section B of this permit. The rolling twelve month total shall be calculated for PM_{10} on a monthly basis and shall be compared to the above annual limit. The source shall be in compliance if the rolling twelve (12) month emissions are $\leq$ 90 tons.

      Monthly PM_{10} emissions = $\sum$ PM_{10} from buffing and grinding + $\sum$ PM_{10} from painting + $\sum$ PM_{10} from plating + $\sum$ PM_{10} from natural gas combustion (7.6 lbs / 10E6 scf)

   b. Each month the permittee shall calculate the VOC emissions for the month and a new twelve (12) month rolling total. The source shall be in compliance if the rolling twelve (12) month emissions are $\leq$ 90 tons.

      Monthly VOC emissions = $\sum$ VOC from painting + $\sum$ VOC from plating + $\sum$ VOC from miscellaneous + $\sum$ VOC from natural gas combustion (5.5 lbs / 10E6 scf)

   c. Each month the permittee shall calculate the single HAP emissions for the month and a new twelve (12) month rolling total. The source shall be in compliance if the rolling twelve (12) month emissions are $\leq$ 9 tons.

      Monthly HAP emissions = $\sum$ HAP from painting + $\sum$ HAP from die casting + $\sum$ HAP from plating + $\sum$ HAP from miscellaneous

   d. Each month the permittee shall calculated total HAP emissions for the month and a new twelve (12) month rolling total. The source shall be in compliance if the rolling twelve (12) month emissions are $\leq$ 22.5 tons.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

4. **Source Recordkeeping Requirements:**
   a. Actual VOC, Single HAP, Combined HAP, and PM_{10} emissions shall be determined and recorded on a monthly and consecutive 12-month basis in accordance with 3. **Source Emission Limitations,** ***Compliance Demonstration Methods***.
   b. The permittee shall maintain records onsite such that they are readily accessible. The permittee shall provide these records to Division personnel upon request.
   c. All records shall be maintained for a period of at least five years in accordance with **Section F.2**.
5. **Source Reporting Requirements:**
   The permittee shall report on a semiannual basis to the Division's Bowling Green Regional Office at the address listed on the front of this permit the monthly and 12 consecutive month total VOC, Single HAP, Combined HAP, and PM_{10} emissions as required in 4. **Source Recordkeeping Requirements**. Also see **Section F.5**

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place (as defined in this permit), and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030 Section 3(1)(f)1a and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

3. In accordance with the requirements of 401 KAR 52:030 Section 3(1)f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

9. Pursuant to 401 KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
   a. Identification of each term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality	Division for Air Quality
Bowling Green Regional Office	Central Files
1508 Westen Avenue	200 Fair Oaks Lane, 1st Floor
Bowling Green, KY 42104	Frankfort, KY 40601

10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee. If a KYEIS emission survey is not mailed to the permittee, then the permittee shall comply with all other emission reporting requirements in this permit.

11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
    a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
        (1) The size and location of both the original and replacement units; and
        (2) Any resulting change in emissions;
    b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
    c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
    d. The replacement unit shall comply with all applicable requirements; and
    e. The source shall notify Regional office of all shutdowns and start-ups.
    f. Within six (6) months after installing the replacement unit, the owner or operator shall:
        (1) Re-install the original unit and remove or dismantle the replacement unit; or
        (2) Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12;
      (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

      Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-12-b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].

l. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

q. Pursuant to 401 KAR 52:030, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in this permit; and
(2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].

b. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

3. Permit Revisions

a. Minor permit revision procedures specified in 401 KAR 52:030 Section 14(3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

   a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

   b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

   c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

   If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

7. Emergency Provisions

   a. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
      (1) An emergency occurred and the permittee can identify the cause of the emergency;
      (2) The permitted facility was at the time being properly operated;
      (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
      (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.

b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030 Section 23(2)].

8. Ozone depleting substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

9. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

   RMP Reporting Center
   P.O. Box 1515
   Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None.

SECTION I - COMPLIANCE SCHEDULE

None.